

PATHWAYS

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YOUR ATTENTION PLEASE

Dear Reader,

As 1982 draws to a close, we wish each of you A Happy New Year and every success in your teaching. We look forward to hearing from more of you in the form of articles and other contributions.

You must have noticed that this issue is coming out a little late. As schools all over the country have been closed on account of the Asiad, we felt it best to delay a little, to ensure that you get your copies when you are back at work.

Subscriptions for **PATHWAYS** are now due. Please send in Rs 8/- so that you get all four issues of 1983. **All subscriptions are valid for a calendar year**. Even if you join our subscribers later in the year, we will send you the back numbers for that year. Remember to send us your complete address, including the PIN Code number. We sometimes receive money orders without details and it becomes difficult to keep track of such orders. Our address

PATHWAYS
The Educational Planning Group,
4, Raj Niwas Marg, Delhi - 110054.

A Rangoli Competition

This brief report of an interesting event that took place recently at the Sardar Patel Vidyalaya, New Delhi, is published in the hope that teachers from other schools will write and tell us how they created opportunities for children to learn more about our Indian heritage, to see the similarities (and differences) in the life and living of people from different parts of our country.

First, an excerpt from the principal's letter to parents informing them of the event, inviting them to visit the school and participate in the programme itself.

"The festive season of Diwali is just a few days away. This is one of the major festivals that is celebrated all over the country although the festivities may take different forms. The (Cultural) Unity in (Sub-cultural) Diversity of the country is evinced in the vast varieties of ways in which our people embellish the threshold to their homes on this and other auspicious occasions. Floor-decoration, be it "rangoli", "alpana", or "kolam" is part of our rich heritage. The multiplicity of media—rice

(Contd. on page 20)

STRAW EXPERIMENTS (I)

Every well-meaning teacher should make use of readily available and inexpensive material for classroom experiments and demonstrations. And it requires just a little resourcefulness on the part of the science teacher to make his classroom instruction interesting and relevant to the everyday experiences of the student. This can be achieved by using materials which are commonplace in the life of the student.

The drinking straw is a common article and can work as a good tool for very many experiments. Moreover, it is inexpensive and easily available. Not only can the teacher perform demonstration experiments in the school using straws but students can do many of them at home too.

In order to give students the thrill of discovery and finding out, it is better to prepare 'do-it-yourself' work-sheets. This will give students scope for some free-wheeling ideas and open-endedness in making observations and drawing conclusions.

Here, in these pages, a few experiments using straws have been illustrated. The author has developed and compiled fifty experiments using straws. Some of these experiments are being shared with readers. This write-up has five straw experiments.

1. A STRAW SAXOPHONE

Take a straw and flatten it at one end. Cut along the corners as shown in Fig. 1

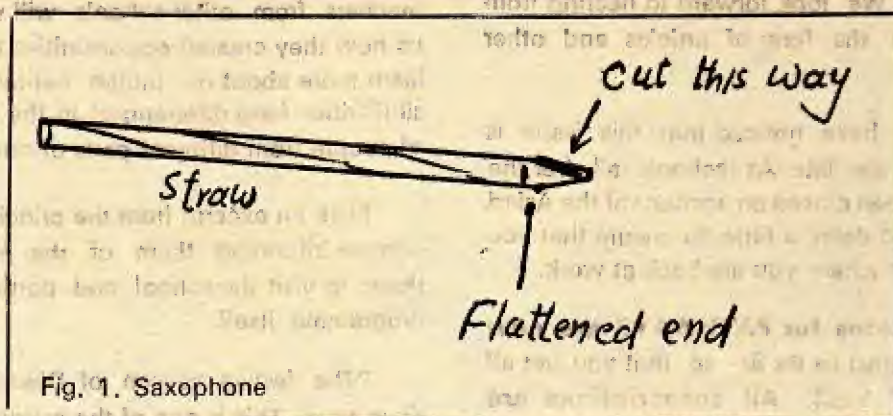


Fig. 1. Saxophone

- Keep the flattened end in your mouth and blow into the straw or suck out air from the other end the straw. What do you observe?
- Cut the straw shorter and blow into it again. What difference in the sound do you find now?
- What do you conclude from the experiment? Does the note from the straw become higher or lower as we decrease the length of straw?

2. A STRAW PRESSURE GAUGE

Take a straw and flatten three-fourths of it. Turn the flattened portion of the straw round as shown in the diagram (Fig. 2)



Fig. 2. Pressure Gauge

- Keep the unflattened end of the straw in your mouth and blow into it slowly. What do you observe?
- Turn round the flattened part of the straw again and blow harder into the straw this time. What do you observe now?
- Name an instrument working on this principle.

3. A STRAW SURFACE TENSION BOAT

Take a small piece of a straw (3 cm long) and cut it as shown in Fig. 3. Make a small blade cut at the other end of the straw piece. Fix into the cut a small piece of camphor.

Take a bowl of water. Remove any traces of oil from its surface by means of a blotting paper.

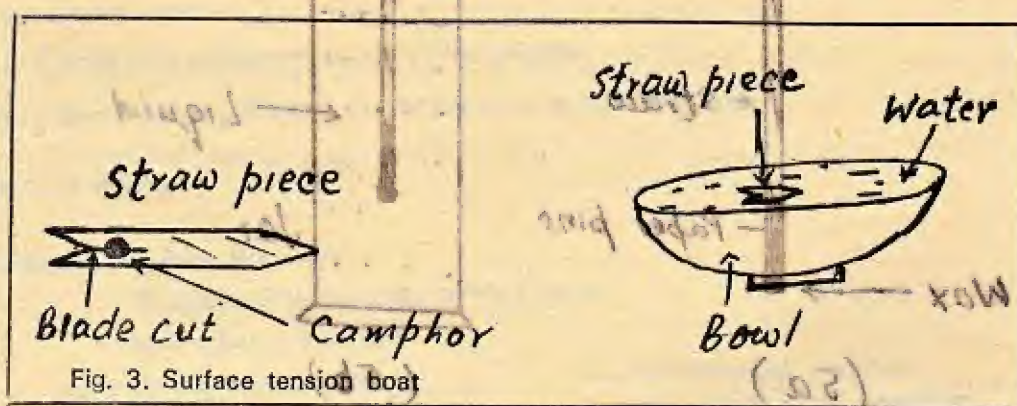


Fig. 3. Surface tension boat

- Leave the straw piece in the bowl. What do you observe?
- Dip a match-stick soaked with oil into the bowl. What do you observe now?
- What is the reason for such behaviour of the straw piece?

4. A STRAW ELEVATION-FINDER

Take a straw and fix it on a protractor using a piece of cello-tape as shown in Fig 4. Also tie a piece of thread carrying a few paper-clips at the centre of the protractor. The thread works as a plumb-line.

- (a) Look through the straw at the top edge of a building and read the angle which the plumb-line makes on the Protractor (the angle of elevation).

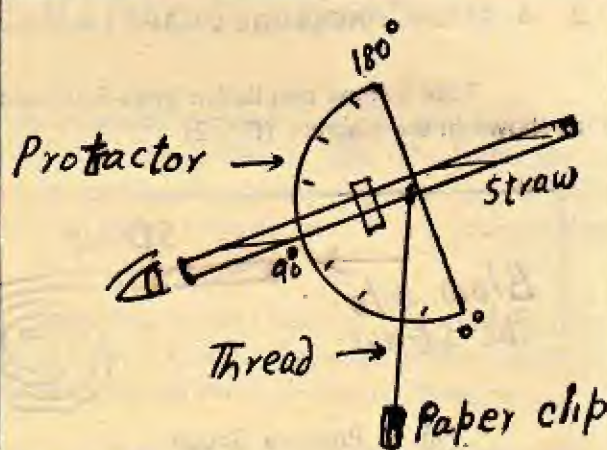


Fig. 4 Elevation finder

- (b) Move away from the building and find out how the angle of elevation changes with the distance.
(c) Make a histogram or graph between the distance from the building and the angle of elevation.
(d) Find the angle of elevation of different well-known stars.
(e) Find out how the angle of elevation of the Moon changes with time. Take observations after every one hour.

5. A STRAW HYDROMETER

Take a straw and block one of its ends with wax. Put a few paper pins into the straw so that it can float upright in water. (See Figs. 5a and 5 b)

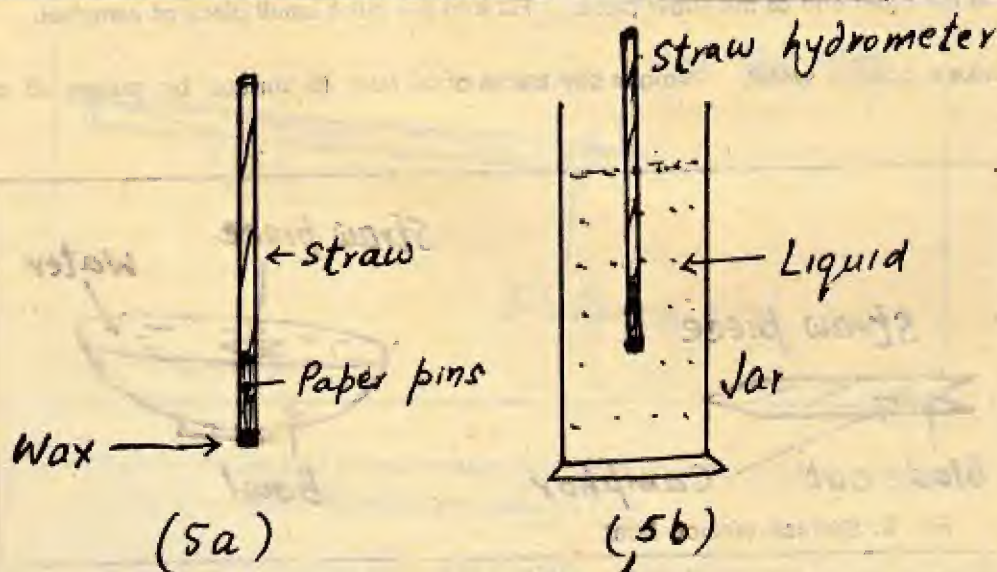


Fig. 5 Straw hydrometer

- (a) Calibrate the straw hydrometer to find the relative densities of various liquids.
(b) Use the hydrometer to find the relative density of an unknown liquid.
(c) Use the hydrometer as a lactometer to test the purity of milk.

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YOUR OWN NEWSPAPER

—A Language Project for Class XII

Ever since the +2 courses started four years back, I had been struggling to make the book **A COURSE IN WRITING ENGLISH** interesting for the students of Core English. The book in itself is excellent. But how does one make things like : factual description of objects, reporting events and experiments, factual description of instruments and processes, note-making etcetera interesting ? Till a few months back it seemed to be not only an eternal problem, but a nightmare too.

In our school, Sardar Patel Vidyalaya, we hold classes for the students of class XI after their final exams in which we take up their class XII courses and texts. This has been found to be very useful as the students can complete a number of useful yet time-consuming assignments during the summer vacation.

This year I decided to take up the above text. I just didn't have any definite ideas about how I was going to tackle it. With this weighing heavily on my mind, I sat one morning, reading the newspaper and there I found a solution to my problem. I suddenly realised that almost all the different types of items in the text were usually a part of a newspaper; or somehow they could be pushed into a newspaper. This is how the project YOUR NEWSPAPER originated. Here is the outline of the project giving details of the exercises set for the students.

BRING OUT YOUR OWN NEWSPAPER

General Instructions :

- * All the names used (people, places and institutions) are to be fictitious.
- * Read the newspaper very carefully for a few days, noting the different styles of expression and the vocabulary used.
- * Try and make your newspaper as natural as possible.
- * Give an interesting and thought-provoking name to your newspaper.

THE FRONT PAGE

1. Headlines: A Bank Robbery—
A Special Correspondent writes a report.
Remember to include :
 - eye witness accounts
 - time
 - circumstantial evidence
 - other details of the operation
2. The External Affairs Minister returns from a goodwill visit. A report of the press conference at the airport on his return to the capital
3. Weather report

4. Perhaps a cartoon or two. Draw if you can. This is only to liven up your paper.
5. One advertisement for the restaurant of a five-star hotel (detailed factual description is required)
6. A few small news items : e.g. a. sugar quota goes up b. fictitious international news

PAGE 2

1. Three 'To-Let' notices with as many factual details as possible. Advertise the following :
 - i. A three-bedroom apartment
 - ii. A guest house
 - iii. A two-room **barsati** set
2. 'Situations Vacant'. Write detailed advertisements for :
 - i. A Stenographer
 - ii. A maintenance Engineer
 - iii. A Neuro-surgeon in a government hospital
3. 'For Sale' notices :
 - i. Two notices for vehicles
 - ii. A cooking range
 - iii. A typewriter
4. Advertisements-write full factual descriptions
 - i. Pressure Cooker
 - ii. Air cooler
 - iii. An educational toy for a 7 year old

PAGE 3

1. Animals in the zoo react to the hottest day of the season—a report
2. School Examination Board holds talks with teachers
Topic : XIIth class—Examinations 1982
 - Report the discussion
 - Make notes of it
 - Summarise the talks
 - Abstract the opinion of the Chairman of the Board.
3. Coal miners go on strike
4. Road accidents in the capital go up
5. Announcements : Institute conducting certain useful short term courses for students during the summer vacation
6. Inauguration of a new shopping complex (full factual description of the place to be included)

PAGE 4

1. Editorials : i. Bank robbery ii. School Examination Board
2. Letters to the editor :
 - i. A new bus route needed
 - ii. Open manholes along a main road
 - iii. Kudos to a voluntary organisation for the handicapped
 - iv. Erratic load-shedding
 - v. Non-availability of textbooks
3. Sports column : i. The capital prepares for the greatest sports event
ii. School summer tournaments

PAGE 5

Our Correspondent takes a look at the comparative achievements of girls and boys in SEB results. The number of passes in each school is listed.

Girls' Schools

Subjects	A	B	C	D	E	Total Passes	Total Failures
English	15	20	28	28	3	94	6
Maths	13	10	24	31	9	87	13
History	18	16	24	31	9	98	2
Geography	12	18	22	27	9	88	12
Biology	18	16	36	20	2	92	8
Physics	6	7	28	34	10	85	15

Boys' Schools

Subject	A	B	C	D	E	Total Passes	Total Failures
English	12	15	24	32	11	94	6
Maths	10	17	23	20	18	88	12
History	10	15	29	29	5	88	12
Geography	4	7	25	36	15	87	13
Biology	8	12	22	38	8	88	12
Physics	18	16	29	24	4	91	9

Study these tables and write a report of your observations and conclusions

PAGE 6**I. Children's Corner****1. Giving instructions (describe the processes)**

- How to make a telephone call from a public telephone booth
- Learn to ride a bicycle

2. Reporting experiments

Write a report in the scientific format of any two interesting experiments conducted in your school. (The experiments can be either social or scientific)

3. Quiz or a Crossword Puzzle of 10 to 15 single sentence definitions.**II. Ladies' Corner**

Write step-wise procedures for cooking two of your favourite dishes.

III. Apply through the Editor

Write out three letters of application answering the three advertisements in the Situations Vacant Column on page 2.

The response to the project was highly encouraging. It proved interesting to the students as they did not feel that they were working on drab, mundane classroom exercises. All students produced their papers in the actual newspaper format and size. They stuck their written work either on actual newspapers or brown sheets of suitable size. Most of the newspapers handed in were spicy and yet they kept to the required style.

It was interesting to note that the students used appropriate styles of expression while reporting the bank robbery and while commenting on it in the editorial. Here is an example :

KANNADA BANK ROBBERY IN BROAD DAYLIGHT
Thieves Escape with 17 lakhs in Cash and Gold Biscuits
 By our Special Correspondent

New Town — 21st May

In a daring daylight raid this morning the Kannada bank on Montgomery Street was robbed of 17 lakhs in cash and gold biscuits. According to the police the operation took around two hours. This robbery seems to be another of the series that have been taking place in the capital during the past year.

According to eye-witness reports, four men corresponding to the description of members of the Ram Lall gang came this morning at 11.00 a.m. in an inconspicuous brown Fiat.....

The police are rumoured to have some very useful clues which they, however, refuse to disclose.

The following is the editorial written by the same student :

BANK ROBBERY—CHILD'S PLAY

The ease with which the Kannada bank was relieved of a major part of its assets speaks volumes about the poor security systems in our banks. The robbers just walked in and took away whatever they wanted without even a show of protest from the guards.....

A time has come for us to take stock of the security arrangements in banks.

Perhaps the greatest satisfaction for me, lay in reading interestingly written factual descriptions of places, objects and processes. The descriptions of the processes of making a telephone call and riding a bicycle were delightful. Even a student who wanted to escape writing wrote the following:

Learn to ride a bicycle. Try, try and you'll succeed. (Details tomorrow).

Contd. on page 12

BOOK DISCUSSION

Quite often I hear this comment from my students that they don't have any interest in reading a particular book just because that book is prescribed as a text book for them. It is a common experience for us adults also. As long as any work is done for pleasure we do it whole-heartedly, but the moment it is enforced it ceases to interest us. The best way to tackle this problem is to make the students feel that they are reading the book not from an examination point of view, but to read it for the sake of reading. To create this sort of interest we should make them read similar books which will motivate and provoke them to express their opinions openly. To create a forum for such free expression we, in Bluebells, have conducted a number of book discussions.

These discussions have proved useful to our students. Not only the students who take Elective English, but the Science and Commerce students are also equally eager to participate in these discussions. The usual belief is that at school level they don't require that sort of in-depth study of serious books. But in this supersonic jet age when everything moves with super speed, our motto should be 'catch them young'. There is certainly no age limit for inculcating a taste for good literature. We must prepare a base for further improvement in college and university stages.

Our first objectives should be to inculcate good reading habits and to make the students aware of new arrivals and the latest trends in thought processes. Secondly we need to make them read rapidly to assimilate the gist of as many books as possible by the same author or to read the same type of books by many authors. Thirdly we must make them think analytically especially about the plot, the style, the technique and characterisation of a chosen book.

The teacher's first job is to sound the students regarding the selection of the book. Usually there will be heated arguments in this regard. The teacher should give credit to their opinions and interest and select a book of which the majority of students approve. The teacher should read the book thoroughly and ascertain if the book has enough debatable material and whether the students will profit by the discussion. There should be scope for discussion on the pros and cons of issues involved and yet the book should not moralise or philosophise. It should leave the ultimate conclusion to the imagination of the readers. Some books are rather one-sided while others are simply descriptive with little matter to discuss. At the same time the average age, mental ability and language competence of the class must be borne in mind. Thus the teacher's ability in selecting the right book is of great importance.

Once a book is selected, a date is fixed for discussion. A circular is drafted and sent to various schools, asking them to send at least two participants and an observer. Usually the time allotted for a discussion is around two hours, but my personal experience is that once students are motivated there is no end to their arguments and counter arguments. Even though we select only two students as participants, the others of the class should not be left out. The teacher should briefly tell them the whole story so that they can also follow the course of discussion and contribute their opinion. On many occasions we found that with the listeners getting fully involved it became a problem to control the situation. To curtail this sort of free-for-all, we have a moderator who will initiate and guide the course of the discussion. We have also invited teachers from colleges to be the moderators. However teachers often fall into the trap of lecturing instead of just keeping the

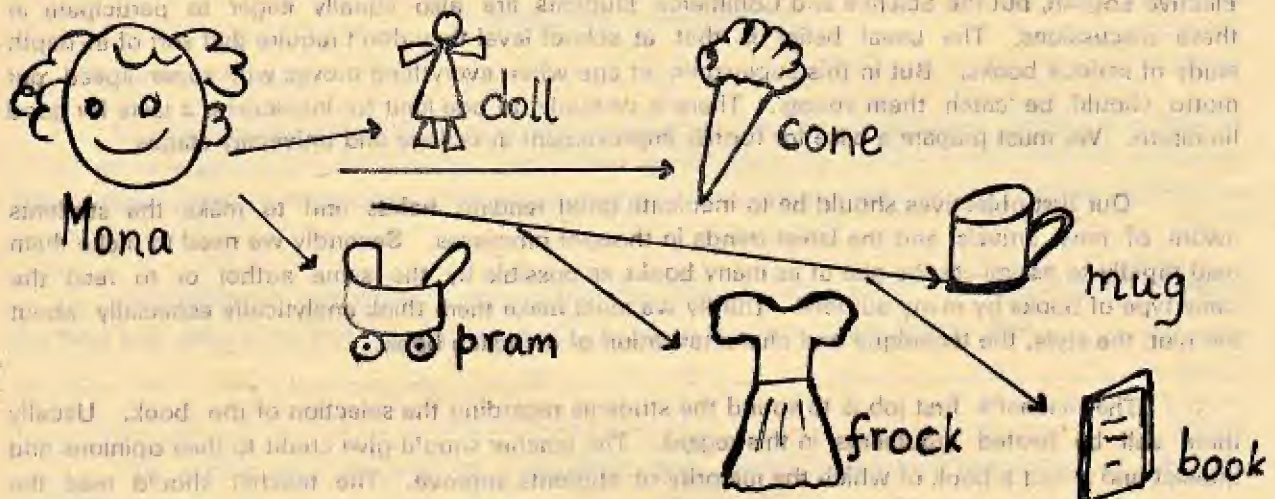
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PUNCTUATION FOR CLASS I

(Inverted commas and apostrophes)

The full stop and capital letters were quite simple for this age group (6 years) to understand and put into practice.

The next step was to teach them the 'apostrophes', to avoid spelling mistakes and improve comprehension. To make it interesting this is what we did. Each child was asked to draw his or her own face in one corner of the page. Then they were asked to draw at least six of their favourite toys, possessions or any favourite item of food or clothing.



The children then made sentences thus:

- * his doll belongs to Mona.
- * This cone belongs to Mona.
- * This pram belongs to Mona.
- * This frock belongs to Mona.
- * This mug belongs to Mona.
- * This book belongs to Mona.

It was then explained that there is a shorter way of writing this, by using an 'apostrophe' or 's' —

Mona's doll Mona's mug Mona's cone Mona's pram
Mona's book Mona's frock

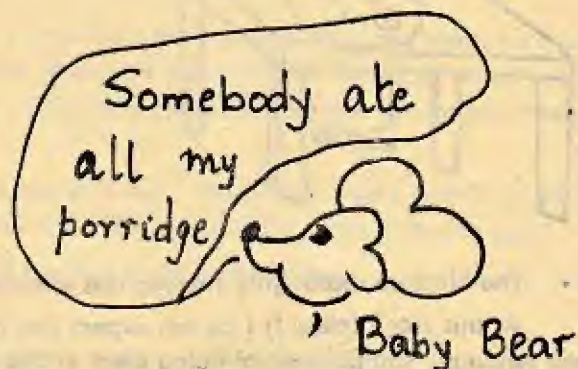
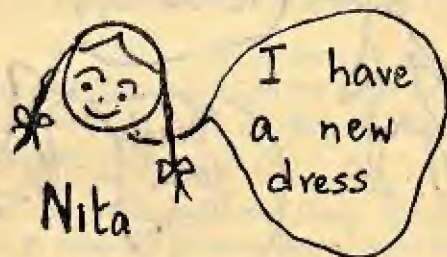
We then took new words like; cones, dolls, mugs, prams, frocks, books.

With the help of sentences the children understood that these were the plural forms of the words they had listed in their lists of favourites. They were then told to do an exercise filling in the blanks with the correct word.

1. (Cone, cones) There are many flavoured—————in the ice cream parlour.
2. (Doll, dolls) This is Mona's—————
The—————sat in a row at the party.

This explained the difference an 's' can make in the meaning of a word.

As the children's reading progressed we came across inverted commas. To help the children to read with expression it was necessary to explain these too. It was done by getting the children to observe the conversation form used in comics.

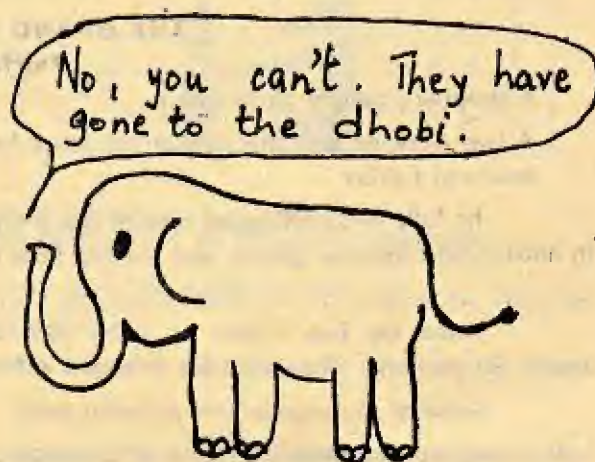


The children were able to tell me that in story books, conversation was presented in "wigglydots". It was simple then to get the children to translate 'comic' conversation into 'story book' conversation :

Nita said, "I have a new dress."

Baby Bear said, "Somebody ate all my porridge."

From these stray sentences we progressed further in conversation.



Baby Elly asked, "Can I wear my pink pyjamas?"

Mama answered, "No, you can't. They have gone to the dhobi".

To help the children to use their imagination, cyclostyled sheets were made showing a situation. The situation was discussed and the children were asked to fill in suitable comments.



- The children thoroughly enjoyed this exercise.

At this stage (class I) I do not expect that children will remember to use the inverted commas in their writing. The purpose of doing them at this stage is more to help them to read with expression and understanding.

After this concept was introduced, we took up the dramatization of the story of "Three Little Pigs". Children were allotted roles to read the various characters, which was done with the necessary tone and expression.

Mrs. Veena Chaubal
New Vista School, Calcutta

Contd. from page 8

Here is a factual description of a shopping complex.

THE GRAND SUPER BAZAR Fairfax Place

A shopper's delight come true !

A five-storeyed building with an attractive brick-red exterior in the midst of the large, lush green lawns of Fairfax.

Its fully air-conditioned interior has a diverse range of stores. The ground floor specialising in household consumer goods, and the first floor in eatables and groceries.

There are five flights of stairs traversing the entire height of the building in addition to a double lift system. The shops are arranged in four wings stemming from the central staircase

Some of the experiments reported were.

- * An experiment to prepare artificial or chemical snowfall inside a laboratory; and
- * An experiment to create artificial or chemical sunset in the laboratory !

With this project successfully completed both my students and I felt that we had covered a great portion of the course requirements (almost 95%) in a pleasant, painless and absorbing way.

Mrs. Vijaya Subramaniam
Sardar Patel Vidyalaya, New Delhi

Pictures and Patterns that Balance

Here are some activities to help children understand the idea of symmetry.

1. Trace around some floor tiles, bricks and any square or rectangular shapes. Cut out these shapes. Try to discover ways of folding the shapes so that one half matches the other half.

2. Take a square of paper and fold it down the middle. Put a blob of paint on the fold. Carefully fold the paper again and press down the paper. Open out the paper and let the paint dry. What do you notice about your picture? How has this happened?

3. Fold a piece of paper in half. Draw a line down the fold and draw any shape on one side of the line (Figure A). Fold the paper **backwards** along the same fold. Now use a pin to prick through the paper along the lines of your shape. Open up your paper and join up the pin marks. Is your picture 'balanced'?

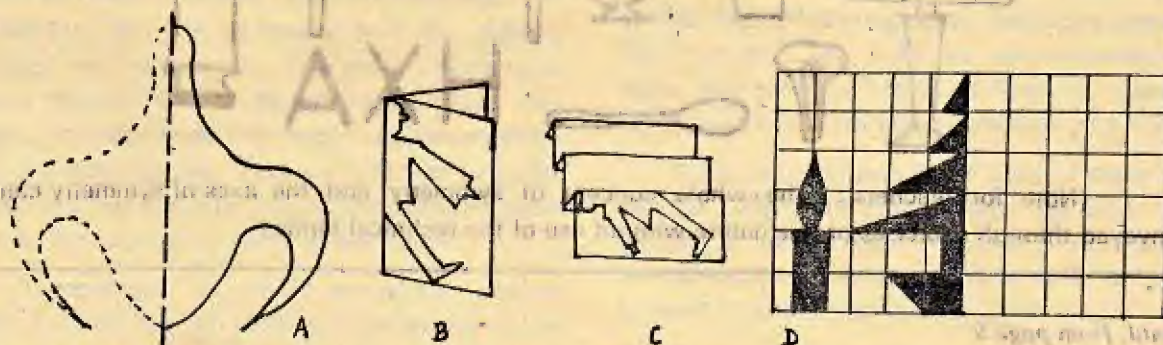
4. Take a square piece of paper and fold it in half. Now draw half a doll — as shown in Figure B. Keep the paper folded and cut round the doll. Open the paper. What do you see?

The fold is a balance line. Each half of the doll is the same. When you paint the doll try to balance the eyes on either side of the fold.

Repeat the exercise, but this time fold the paper several times (Figure C). What happens now?

Notice that the cut-out portion left behind in the paper is also a balanced pattern.

Try to obtain interesting patterns by making cut-outs of different patterns.



5. Borrow a rectangular or square mirror from your mother (or the school laboratory).

On a piece of paper draw any pattern. Can you place the mirror on the paper so that the pattern doubles itself. Does the whole picture look balanced?

Use your mirror with the pattern you drew for activity 3. Where must you place the mirror so as to double the picture?

Use crayons to draw patterns which after doubling in the mirror will look like a leaf, a human face, a pretty pattern.

6. Make a collection of leaves. Do not pluck more than one of each kind. Fold them in half. What do you find?

7. Copy the drawing shown in Figure D on squared paper. Complete the shape so that it balances.

Make up some more balance drawings on your squared paper.

8. Use a crayon to write large—size capital letters and cut them out. Find out which ones are 'balanced' by folding the cut-outs. Can you find some letters that can be folded in more than one way. Remember the two halves must match each other.

9. Make a list of things around you that balance. Draw as many of them as you can.

Use dotted lines to show the lines along which they can be divided into two matching halves. This picture gives you some ideas.



(Note for teachers.: The whole concept of symmetry and the axes of symmetry can be conveyed through exercises of this nature without use of the technical terms.)

Contd. from page 9

discussion flowing smoothly. This leads to complaints from the participants that they did not get a chance to speak or that they were not given adequate time. Since our main objective is to make them think, it is better if we just initiate the discussion and leave it to them. The moderator should only interrupt when the situation gets out of hand or if participants go completely off the point.

So far, in our school, we have discussed Thomas Hardy, Henry Golding, John Steinbeck and James Orwell. We can never say we have discussed these famous authors thoroughly, because there is so much to learn and ponder upon. The students and I look forward to many more interesting hours of reading, thinking and sharing of ideas.

Mrs. R. Kalyani Rao

Head of the Dept. of English
Bluebells School

Something to Think about

Dear Colleagues,

As teachers we, often unconsciously, set an example which our students imitate. I am not trying here to moralise about things like being in time for the morning assembly, finishing our own work on time, being prepared for class and so on. What I am concerned about now is a matter of **safety** — both within the school and in homes. What prompted this letter is the agonising death of a young, educated woman whose nylon sari caught fire while she was cooking. I remembered at once a teacher of Home Science whose reply, when I remonstrated about her wearing synthetics while working near a gas burner, was, "Don't worry. I'm used to it. In fact, I never wear anything except Synthetics!"

Apart from the great danger she exposes herself to every time she conducts a cooking class, consider the impression on the minds of her students, ranging from Class VI (SUPW) to Class XI (Elective Home Science students). No doubt they feel, that so long as they are careful, nothing can go wrong. Well every person who had a fire accident in the kitchen thought the same, until she made that single careless mistake that costs so much! True a cotton sari can also catch fire, but certainly it does not pose the same risk as that beautiful, uncrushable nylon!

The **careful** use of all equipment, ranging from a simple kitchen knife to a bench vise in the carpentry shop to electric mixers and pressure cookers needs to be learnt and practised. Imagine what might happen if you were talking to someone and put your fingers into the jar of a working electric blender.

I am ever grateful to a Chemistry teacher of mine who was very firm and would not allow us to enter the laboratory unless we wore protective lab coats. She was meticulous in teaching us correct laboratory technique—how to hold a bottle of a reagent, never to put it down on the work surface, always to replace it on the shelf as soon as we finished using it. In college, there were fellow students who used to leave bottles of concentrated acid open, right at the edge of the table! Others used to boil strong acidic solutions with the test-tube pointing away from themselves, but directly aimed at the persons on the opposite side of the table.

Another area where we can educate our students to observe the rules of safety is in the use of electricity and electrical gadgets. Some schools conduct classes on how to fix a plug correctly, why it is important to use fuse wire of the correct thickness and how to avoid electrical shocks. It needs very little time or money to ensure that all the gadgets used have properly fitting plugs. The habit of inserting exposed wires into electrical sockets is liable to damage equipment as well as expose the user to a shock.

Some schools have Road Safety Patrols and children visit Traffic Parks to learn the rules. Do we try to follow them ourselves? In doing so we reduce the risk to ourselves as well as make it easier for other users of the road.

Finally should anything untoward happen, it is useful to know what First Aid must be given to the victim.

Gayatri Moorthy

Courtesy costs nothing but buys everything.
None has the monopoly of wisdom.

A Language is for Communication

—by Malini Rajendran

Any language—be it English, Hindi, Tamil or any another regional language—is primarily intended to be functional. It is intended to serve as a useful tool for conveying ideas, requests and so on. It has to be able to function in a wide variety of situations. Literature, which one might call the abstract form of the function of language, is after all only a sophisticated word for creative communication.

The Telephone Game, which I describe in this article, started out as an innocent language game, in a school where I used to teach. It turned out to be an eye opener for me and my colleagues, so that we eventually converted it into a tool for the teaching of English. Being equipped with extension telephones, it was possible for us to make the game quite realistic by getting the children to actually use the instruments. No doubt, in other situations some degree of make-believe will become necessary. However, this need not detract from the usefulness of the exercise.

Each child in the class was given a card bearing a set of instructions :

- i. what place they were to call (number),
- ii. which person they were to contact, and
- iii. what message they were to relay (situation described).

The calls were received at the other end by the headmistress or a teacher, usually an unidentified person. She responded appropriately to the student's call and assessed the performance of each one. It came as a great surprise to find that though the children involved in the game came from the families of diplomats (of Western countries) and were not unused to the telephone, most of them could not cope with the situations as well as we had expected them to. Even though allowances were made for excitement, they were vague or ambiguous over important

points in the conversation and often did not communicate messages correctly. We realised that the ability to handle situations, interact meaningfully with other people and use language effectively for good communication needed practice. While perfect grammatical language was not insisted upon, it was necessary that the messages should be conveyed accurately and with precision.

The game can be played in any language. Before starting clear instructions must be given to the children. They need time to think over the situation carefully and plan their conversation. Some of them may even write out what they need to say. One or two practice sessions may help them develop some confidence as well. Gradually the situations in which they are required to act and converse may be made more complex.

The children can work best in small groups of five or six. A large audience may disturb them or even confuse them. The members of the group can use the opportunity to observe each other and note down what is missing or could be improved in each telephone conversation. They should not however interrupt or distract the speakers.

The game provides a chance for children to learn to use the local telephone directory. Obviously they must understand how the names are arranged in alphabetical order and know how to obtain information from the special numbers. The situations chosen must be ones for which numbers can be located in the directory. This may need some pre-checking on the part of the teachers.

Two series of situations were planned. In the ABC series, the student is the caller. He or she takes the initiative to look up the telephone number and carry out the instructions given. The

series is coded for the convenience of the teacher: A—cards represent formal situations, B—cards deal with informal situations and C—cards relate to semi-formal situations. In the second series, which called the XYZ series, the child is the receiver of the call. He or she is expected to respond to a call and is not aware of the details of the situation. As the conversations are mostly two-way, they train the child not only to seek information, but also to give it; to make adequate replies to queries and make on-the-spot decisions where required. He or she is also trained in listening skills as sometimes messages are intended to be taken down and conveyed to a third person.

A word of explanation—formal situations were those where the child was expected to communicate with unknown persons he or she had never met before, or working at places the child had never been to. In informal situations the child was familiar with the caller or called party and could identify himself to them individually. Semi-formal situations were those where the family was known or the child could identify himself by virtue of connections etc.

Two sets of cards were made—one for the child (marked C.C.) and one for the teacher (marked T.C.). They were numbered to correspond to the same situation. The child's card gave details of the situation—the number, the person to be called, the message to be conveyed or information to be sought. On the reverse there were guidelines for the caller—what he/she should do before the call, how to answer when the called party replied, points to be kept in mind while talking etc.

The teacher's card carried, in brief, the details of the situation and gave guidelines for evaluation. The teacher needed to note points like.

* Did the children ask: the number, the name of the person or the place?

* Did the children tell: identify themselves clearly, indicate where they are calling from, what the call was about, mention specific details like time, address etc, convey messages clearly,

accurately and confirm that the receiver had taken it down correctly?

Points for improvement were noted down and discussed with the children in the class.

No doubt it seems somewhat complicated when explained in writing like this, however the benefits to the children were enormous. It may be possible to spread out the playing of the game over a period of time so that it does not interfere with routine teaching. Another point to remember is that the experience of speaking on a telephone often makes people tongue-tied. The ability to write a dialogue does not mean that the student will be able to speak correctly when the need arises. Hence verbal practice is essential.

For those who may like to try this out and build up their own idea bank, I give below a list of some useful situations. I hope you will add to these and will find the exercise as useful as we did.

A List of Situations

All the situations listed here are those that we commonly meet in our lives. They have to be graded according to their suitability for your students. With each situation, it is useful to list the points which the teacher looks for during the evaluation, even though many of them will be repeated.

The series given here is for situations where the child will be the caller—what I have earlier called the ABC series. Some of the situations can be reversed and used for the XYZ Series—where the child receives the call. Others will have to be worked out afresh.

Ring up

1. The family doctor:

- i. Your mother is having high fever. The doctor is to come and see her.
- ii. Your brother has fallen and hurt himself. You are alone at home. Find out what you should do.
- iii. Make an appointment for a general check-up, tomorrow evening at 4.30 pm.

- iv. Find out the timings of the clinic.
- v. Find out on which day the clinic is closed.
- vi. Find out where and when you will be able to have your typhoid inoculation.

2. The dentist and make an appointment for a friend who needs to have a tooth filled.

3. The Safdarjung / Moolchand / Willingdon Hospital :

(Obviously teacher will use the name of local hospitals.)

- i. The school bus has had an accident. Ask them to send an ambulance.
- ii. Your old grandmother/grandfather is to be hospitalised. She/he needs an operation. Dr. _____ of the hospital is looking after her/him. Find out details about when the patient can be admitted, if an ambulance is available, costs etc.
- iii. Find out the visiting hours.

4. The Archana/Chanakya theatre :

- i. Find out what film is being shown in the noon show today.
- ii. Find out if tickets are available for the 6.30 p.m. show this evening, and the rates for balcony seats.
- iii. Make a booking for seven seats for the matinee show on Friday afternoon. Indicate what tickets you wish to buy.
- iv. Find out if the Walt Disney film will continue next week or there is a change; if so, what the next film is to be.

5. The Airlines Enquiries at the airport :

- i. Find out what time the Bombay/Madras/Bangalore flight is scheduled to arrive. Is it coming on time?
- ii. Ask them to make an announcement for Mrs. Chopra who arrived on flight No.540 from Madras, that a car is waiting for her at the airport.
- iii. Find out if Mr. Lahiri has arrived on Flight No. _____ from Calcutta.

iv. Find out how many daily flights there are to Bombay.

v. Find out the timings of the flights to Madras.

(Note : This could also provide children with useful practice in obtaining information from Airways time-tables, including understanding of the twenty-four hour clock.)

6. The New Delhi/Nizamuddin/Old Delhi Railway Station :

- i. Find out if the Grand Trunk Express is coming on time this morning.
- ii. Find out the fare for a one-day return ticket to Agra and back by the Taj Express.
- iii. Find out the departure timings of the Frontier Mail from New Delhi and Old Delhi Stations.
- iv. Find out which South-bound trains leave from Nizamuddin.

v. Find out on which days of the week the Tamil Nadu/Karnataka/Rajdhani Express leaves (for Madras/Bangalore/Calcutta).

7. The National Art Gallery and find out if they are open today.

8. The International Dolls Museum to find out what special exhibition is open just now and for how long.

9. Shanker's International to find out when the On-the-Spot Painting competition is to be held, where and what the timings are.

10. Your school to find out if today is a holiday.

11. The school or office where your mother/father works to inform them that she/he is not well and will not be attending school/office today.

12. Your father's office to inform him that your little sister is sick and that he should come to the school to take her home (or to the doctor).

13. The Telephone Exchange

(This involves knowing which special number deals with each type of call.)

- i. Find out the telephone number of Mr._____

(Remember to give full name including initials. Sometimes the place of work has a telephone. This department also has—in India—a streetwise telephone enquiry—which works if the address is given. It can also be used to find addresses.)

- ii. Make a complaint that you are always getting a wrong connection when you dial_____ (give number). Ask the operator to please set this right.
- iii. Make a complaint that your own telephone no_____ is out of order_____. You are speaking from a neighbour's house telephone no_____. Remember to note down the complaint number.
- iv. Ask for assistance in getting through to a particular number.
- v. Book a trunk call to Madras (Bombay/ Calcutta etc); telephone number_____. You wish to speak to_____.

(The teacher may have to give children information about ordinary and urgent types of trunk calls, as well as how to book a particular person call.)

- vi. Send a Phonogram informing your parents that you have reached Dehra Doon safely.
- vii. Send a Phonogram wishing your aunt on her birthday.

(Draw the children's attention to the list of messages available in the telephone directory.

Point out the need to give information like the name and address of both the sender and the person to whom the telegram is addressed. It would be interesting to learn to how to reduce the length of message so as to minimise the cost. Some firms/institutions have telegraphic addresses.)

14. Your home/father's office :

- i. You are going to your friend's house from school and will be late getting home.

- ii. You are held up at school owing to unscheduled games practice. Ask your father to pick you up from there at 5.00 pm.

- iii. You have forgotten to convey an urgent message to him.

(Remember school telephones are always busy. Conversations must be brief and to the point.)

15. Your friend's house :

- i. Invite him/her to your birthday party on Sunday at 4.00 pm at your house.

- ii. Make plans (not a long-winded conversation) to meet at the theatre to see a film together on the second day of your summer vacations.

- iii. Inform him/her that you are not well and cannot attend the marriage of his/her sister on Monday night.

- iv. Inform him that a common friend is arriving suddenly from another city and invite him to spend some time with you.

- v. You have been absent owing to an illness. Find out what portions you have missed at school.

- vi. Enquire about the health of his/her mother.

Cont. from page 1

paste, food grains, "geroo", dry powder, flower-petals and leaves, vegetable dyes, etc.—often speak for the resources of the region where they are popularly used.

Year after year we in the School have held a "Rangoli" competition as part of our Diwali celebration. However, we felt guilty that we have been "evaluating" children's performance in an area, where our contribution towards their education was only next to nothing. In order to correct ourselves, expose children to the vast variety in the traditional art of floor-decoration, 'teach' them the meanings of various symbols commonly woven into the design, and 'educate' them to discriminate among the different regional forms, we have invited experts and interested people to give demonstrations of different styles of 'rangoli'.

Fifteen such people will paint 'rangolis' in our canteen hall between 8.30a.m. and 12.30 p.m. on Wednesday, 10th November. They will represent the Gujarati, the Bengali, Shantiniketan (as different from Bengali), Oriya, Malayali, Karnataka, Maharashtra, Rajasthani, Madhubani and other styles in a range of traditional and not-so-traditional media."

Different groups of children, watched the experts at work. Some of the experts were specially invited for the programme, others were volunteer parents and some were teachers. As they worked they explained how the different patterns were formed, how they started as simple designs which could be made more and more elaborate and big. The meanings of the symbols used, the special occasions on which certain decorations were used were explained.

The children were obviously inspired by what they saw during the demonstration. Two days later, at their annual competition, 164 of them, forming 41 groups of four each, took part. This included many boys. The media they used included coloured sawdust, white paint chalk powder and flowers. One imaginative group

even 'set' a raised pattern using Plaster or Paris coloured in four or five different colours. We were told the judges had a difficult time deciding who should be given the merit cards for this competition.

CASME Awards

Commonwealth Association of Science and Mathematics Educators (CASME): Awards for Science and Mathematics Teachers 1982/83.

Teachers and officials working in primary, secondary and tertiary education in Commonwealth countries are eligible to enter for this award. The awards are intended to encourage teaching in mathematics and science, with particular reference to the developing countries of the Commonwealth. Their total value will be of at least £ 300.

Registration must be made before January 31, 1983 and entries must be submitted to the Science, Technology and Education Division of the British Council before May 1, 1983.

Further details can be obtained from your local British Council Office.

Using Diwali Greeting Cards

Greeting Cards which arrive at Diwali and Christmas or New Year are a source of many interesting, colourful pictures for a teacher. Apart from using them on charts and as cut-outs, here is one more interesting idea.

Cut up the card into strips which are broad at one end (A) and taper to a point at the other (B). Roll each strip starting from the end A. This forms the strip into a tightly rolled cylindrical shape, with the tapered point B ending at the centre. Fix B in place with a dab of Fevicol. Leave enough of a hole through the 'beads' to allow them to be strung together on coloured cord (or even strong thread) to form a colourful necklace. To preserve the beads even longer, they may be given a coating of golden shellac or colourless nail polish.

USING SAWDUST

Sawdust is an inexpensive material that can be used for modelling. One of the cheapest of all scrap materials it is available at no cost from any lumber mill. Sift it and then mix enough flour and water to make a mass of doughy consistency. Animals can be modelled from the mixture, and it can be used to make heads and feet for puppets. Uses of sawdust as a modelling medium are almost limitless; and children enjoy working with it immensely. Paint the hard, finished products.

Sawdust Mache

Sift the sawdust with a coarse sieve to remove any pieces of wood that might cause splinters. Measure out 4 cupfuls and place in a bowl. To 2 cups of cold water, add 6 tablespoons of cornstarch and stir until dissolved. Bring the mixture to a boil and pour it on the sawdust. Mix well. The sawdust mache is now ready to be used. **Caution :** The mixture should be poured over the sawdust while still hot, but be careful that the children do not put their fingers into the sawdust to mix it.

This Will Make You Feel Better

If you sometimes
get discouraged,
consider this fellow :
He dropped out
of grade school.
Ran a country store.
Went broke.
Took 15 years
to pay off his bills.
Took a wife.
Unhappy marriage.
Ran for House.
Lost twice.
Ran for Senate.
Lost twice.
Delivered speech
that became a classic.
Audience indifferent.
Attacked daily
by the press and despised
by half the country.
Despite all this,
imagine
how many people
all over the world
have been inspired
by this awkward, rumpled,
brooding man
who signed his name
simply,
A. Lincoln.

Calling All Teachers of History

The Educational Planning Group has prepared a booklet titled : **Humayun's Tomb - A Project for Classes 7 & 8.** Apart from a note to teachers explaining how the project is to be set up and an Information Sheet, the booklet contains six worksheets full of interesting questions and activities for children. Copies of the booklet may be obtained from the Educational Planning Group at a cost of Rs. 3.50 each. The EPG will also be happy to duplicate the worksheets and supply them to schools at the following prices : Worksheet 1 at 50 paise each; Worksheet 2-6 at 20 paise each. Orders must be placed at least ten days in advance.

Teachers outside Delhi might find in the worksheets, ideas for the study of History using local monuments in their own cities.

We would also like to bring to your notice two interesting books :

1. **Profile of the Indian Warrior** : a portfolio of beautiful coloured pictures showing soldiers in period costume-cost Rs. 15/-.
2. **Indian Trade-5000 years** : a booklet tracing the history of trade in India-cost Rs 10/-

Both were brought out in connection with the recent Trade Fair held at Pragati Maidan, Delhi. Write to the Trade Fair Authority of India, Pragati Maidan, Lal Bahadur Shastri Marg, New Delhi-110 001 to enquire about availability of more copies.